

ABSTRACT

The present invention provides a method of preparing fully human antibodies that recognize a pre-determined antigen without relying on human donors that have already been exposed to the antigen. To this end, lymphocytes from naive human donors are immunized *in vitro* with the antigen of interest, and cells that produce antibodies against the antigen are identified. Since the lymphocytes are immunized *in vitro* rather than *in vivo*, it is possible to control which antigen, or which part of the antigen, would be recognized by the antibody. A preferred antigen is gp120 of HIV, particularly the co-receptor binding region of gp120.